

## CLAIMS

1        1. A wave-shaped capacitor, formed over a base conductive layer, said base  
2 conductive layer over a base insulator layer on a die, the capacitor including:  
3        a wave-shaped pattern in the base conductive layer comprising at least two  
4        adjacent trenches in the base conductive layer;  
5        a multilayer structure contoured over the base conductive layer, the multilayer  
6        structure comprising:  
7            a first plate layer in electrical contact with the base conductive layer;  
8            an insulating layer over the first plate layer;  
9            a second plate layer over the insulating layer; and  
10        a interconnect layer over the multilayer structure, including at least one  
11        interconnection with the second plate layer.

1        2. The device of claim 1, wherein the at least two adjacent trenches are formed  
2 by a lithographic or direct writing process and the multilayer structure has a thickness  
3 along the sidewalls of the trench that is less than half of a minimum feature size of the  
4 lithographic or direct writing process.

1        3. The device of claim 1, wherein the base conductive layer and the first  
2 conductive layer are the same structure.

1        4. The device of claim 3, wherein the at least two adjacent trenches are formed  
2 by a lithographic process and the multilayer structure has a thickness along the  
3 sidewalls of the trench that is less than half of a minimum feature size of the  
4 lithographic or direct writing process.

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